DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

SECRETARY OF THE TREASURY

NOV 17 1999

MEMORANDUM FOR TREASURY BUREAU HEADS

FROM: Lawrence H. Summers

SUBJECT: Treasury's Information Technology Strategic Plan, 2000-2003

The attached Treasury Information Technology Strategic Plan, 2000-2003 outlines the major IT strategic planning issues in our Department for you, our employees, Federal officials, and the public. Annually, the Department of the Treasury obligates approximately $2 billion in information technology (IT) systems, equipment, software, and services. Because of the importance placed on managing information technology by the Clinger-Cohen Act and IT's role in implementing the Government Performance and Results Act (GPRA), planning for information technology is more critical now than ever. As we start the next phase of the Department's GPRA planning, this Information Technology Strategic Plan will provide a useful basis for linking technology with your business activities in each bureau.

This document is an outgrowth of the Treasury Chief Information Officers' (CIOs) Council strategic planning meetings. Those meetings produced the "Ten IT Guiding Principles" that are the basis of the strategic plan. In the plan, we have also developed strategies about how to put these principles into action. Our bureau CIOs have been an integral part of developing this plan, and, with your support, they will serve as the chief means by which this plan will be implemented.

If you would like more information about this plan and its impact on Treasury, please contact the Department's Chief Information Officer, James J. Flyzik, at 202.622.1200. This plan is the framework for Treasury's successful use of information technology in the next century.

Attachment

cc: Bureau CIOs
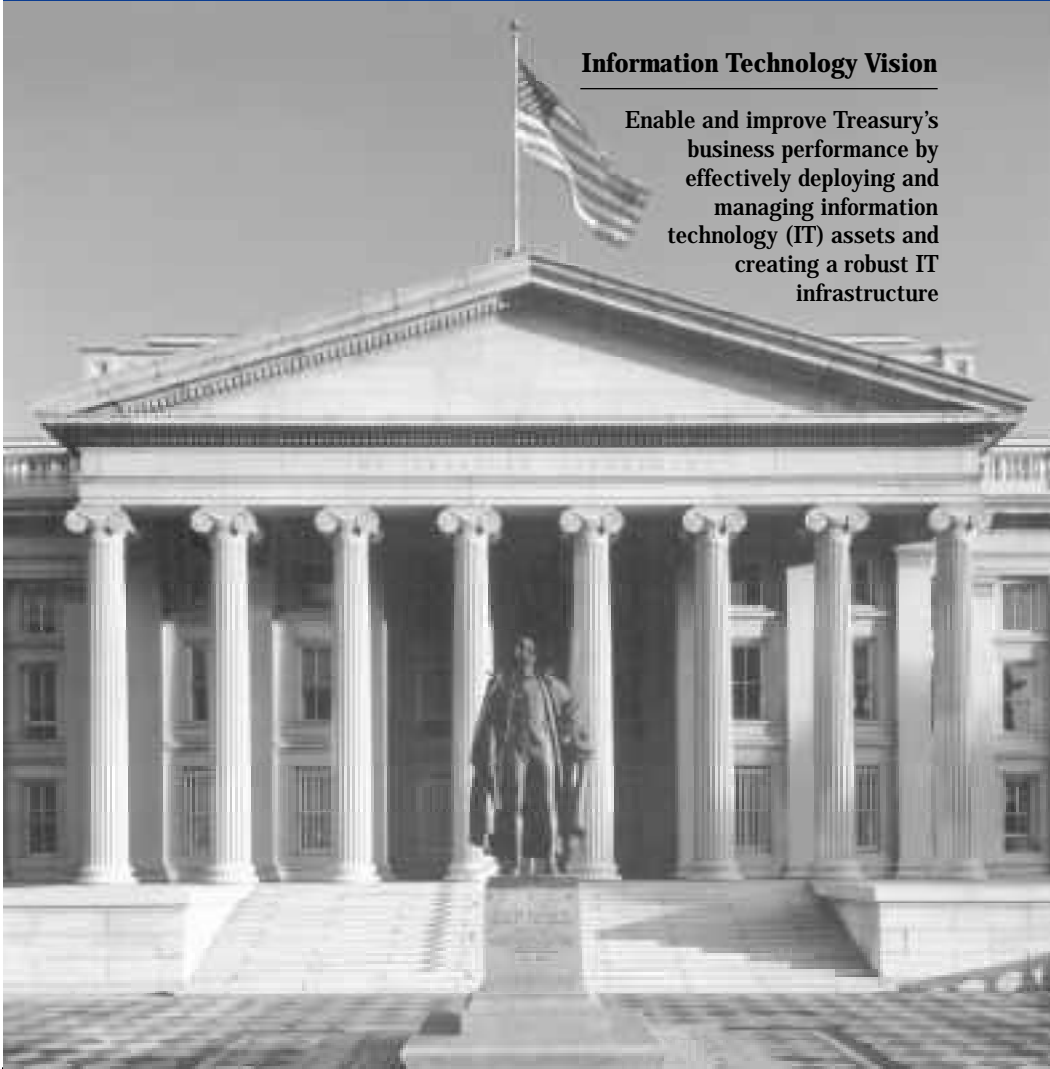
United States
Department of the Treasury

Information Technology Strategic Plan

2000-2003

Information Technology Vision

Enable and improve Treasury's business performance by effectively deploying and managing information technology (IT) assets and creating a robust IT infrastructure
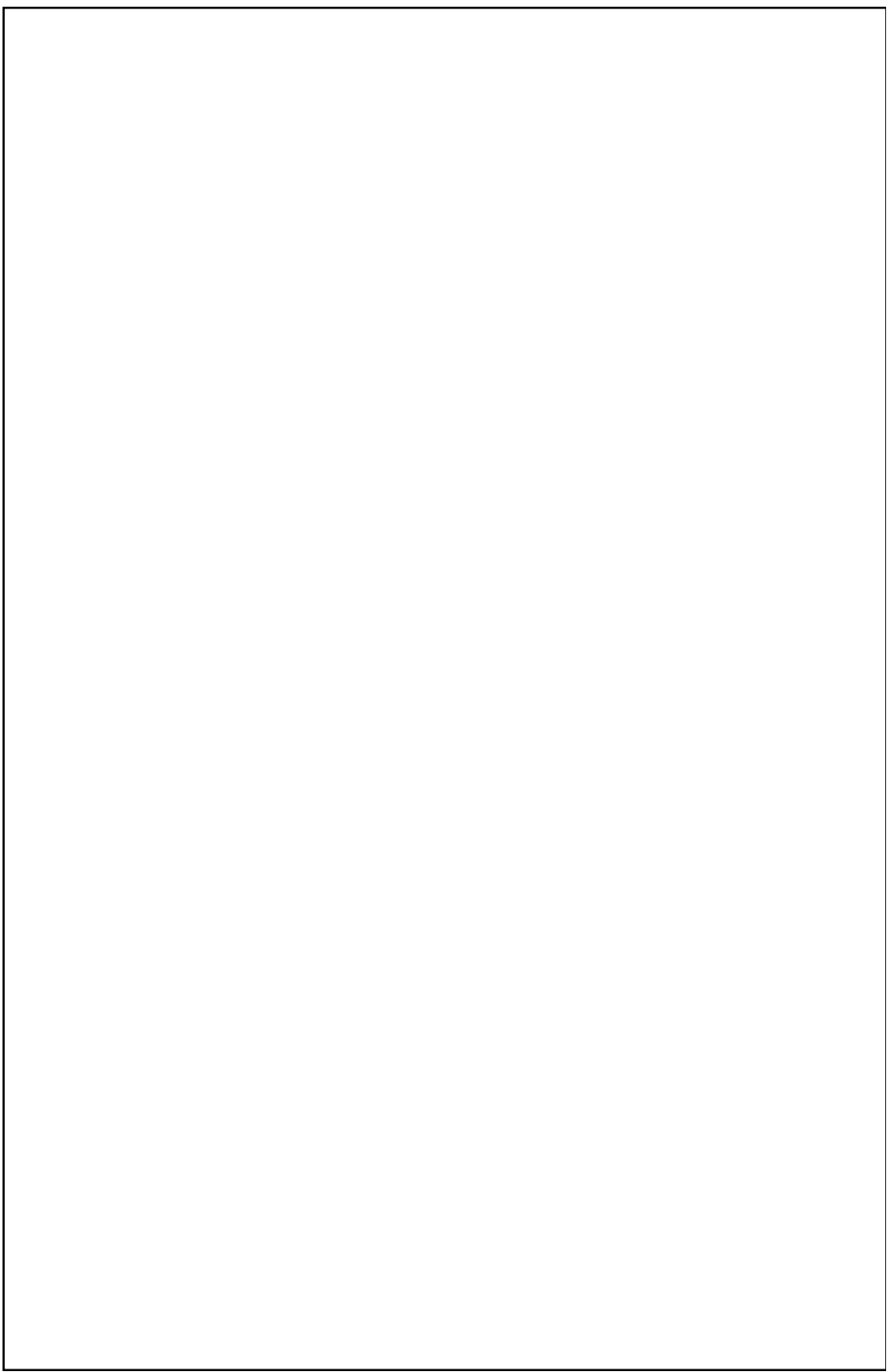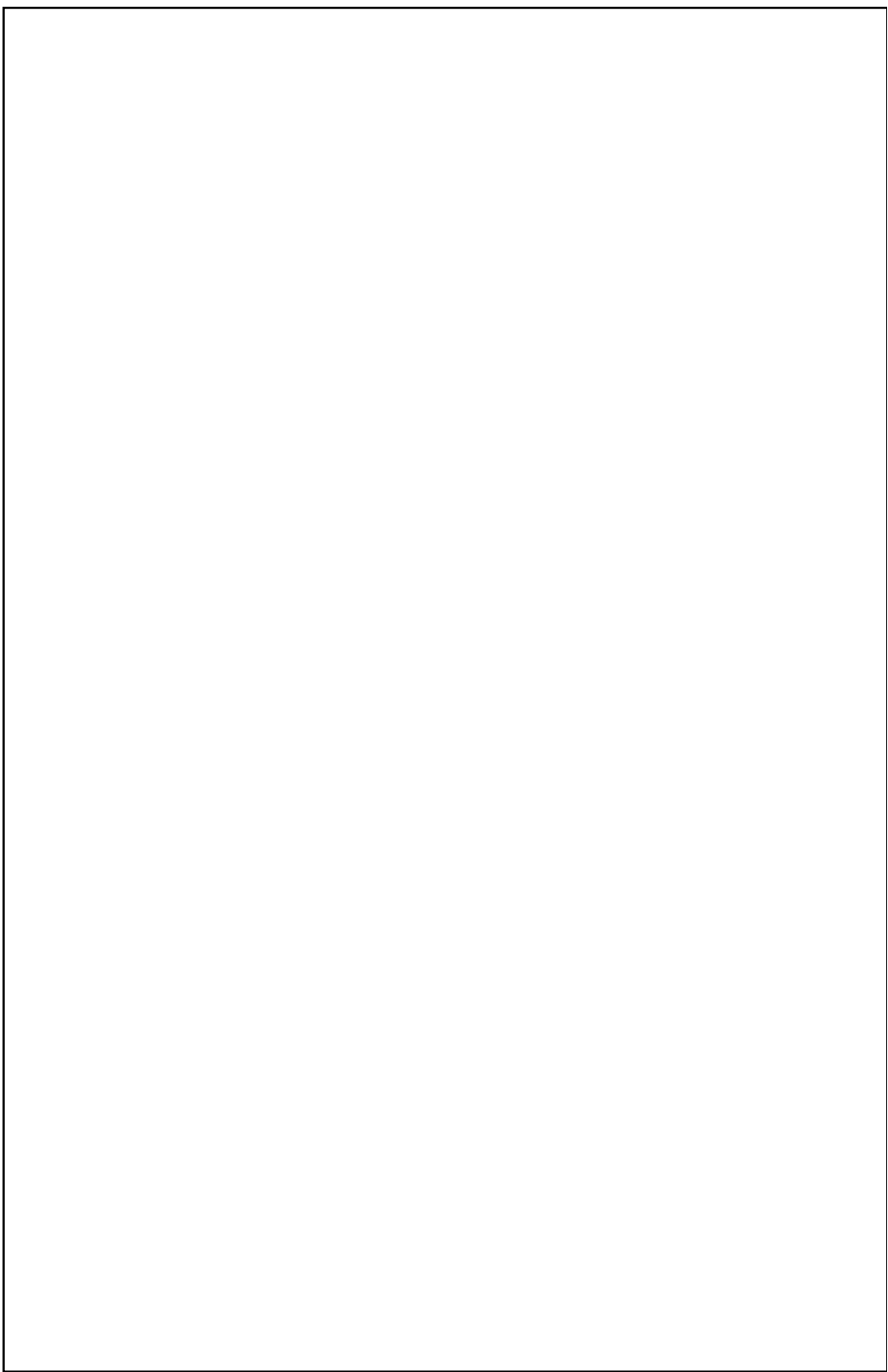
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Message from the Chief Information Officer

"We want to make the Government number 1 in the way Information Technology is used in the world today"
— Jim Flyzik, speaking at FOSE Conference in Washington D.C., March 17, 1999

Treasury obligates approximately $2 billion each year for information technology (IT) systems, equipment, software, and services. These investments must help the Department achieve its goals. The Clinger-Cohen Act and IT's role in implementing the Government Performance and Results Act (GPRA) make planning for information technology more critical now than ever. This **Treasury Information Technology Strategic Plan** outlines for Treasury executives, our Bureaus, Federal officials, Congress, and the public the major IT strategic issues in our Department.

This past year, we redesigned the IT planning process. IT planning is now integrated with budget and GPRA planning. Furthermore, the bureau CIOs and I serve as the Department's CIO Council and Board of Directors. Together, we developed the principles in this **Treasury IT Strategic Plan**.

I have restructured my CIO Office and reorganized my office's business lines. I have set eleven goals for my office:

1. Accomplish Y2K date change for Treasury Systems.

2. Set IT visions and facilitate Treasury-wide strategic planning.

3. Ensure IT investments improve program performance and facilitate mission goals.

4. Develop, maintain and provide implementation guidance for a Treasury integrated IT architecture.

5. Fulfill the statutory and regulatory mandates of the CIO.

6. Assess IT skills and personnel requirements and develop strategies to recruit, develop and retain IT professionals.

7. Position Treasury as an IT leader for the federal government.

8. Implement Treasury Communications Enterprise (TCE) vision by consolidating voice, data, video and wireless technologies and using web-based technology for programs and services.

9. Strengthen Treasury information processing capabilities while minimizing costs.

10. Manage Information Systems Security Risks by ensuring that policies, procedures and practices are adequate to protect resources.

11. Build internal capabilities to support/achieve the CIO mission and goals.

Much work remains to be done to accomplish these goals. This plan is our framework for success.

James J. Flyzik
Deputy Assistant Secretary for
Information Systems and Chief
Information Officer

IT Vision and Relationship with Ten Guiding Principles

Enable and improve Treasury's business performance by effectively deploying and managing IT assets and creating a robust IT infrastructure.

The Treasury CIO Council has established a set of guiding principles as the foundation of its new strategic direction. These ten IT guiding principles ensure that IT enables the business strategies of the Department and the bureaus. The specific purposes of these principles are:

■ The principles of **Leadership and Customer Service** define the overall strategic direction of IT within the Department.

■ The principles of **Strategic Planning, Operational Planning, Performance Measures, and Governance** define the processes for effectively deploying and managing IT assets and investments.

■ The principles of **Architecture, Security, Skills and Capabilities and Shared Services** lead to a robust IT infrastructure within the Department.

Overview of Strategic Actions and Initiatives

Outline Leadership Processes to Meet Customer Needs

❏ Develop leadership processes

❏ Develop a mechanism for incorporating customer needs

Effectively Deploy and Manage IT Assets and Investments

❏ Enhance strategic planning processes

❏ Ensure that IT investments within Treasury are focused on improving the business and operational processes

❏ Establish and maintain a performance measurement system

❏ Develop a clear governance structure for IT management

Develop Robust IT Infrastructure

❏ Define the extent of interoperability needed to satisfy the business needs, and then develop a Treasury-wide Architecture using the Treasury Information System Architecture Framework (TISAF)

❏ Develop and maintain a secure IT environment

❏ Improve IT skills

❏ Examine and determine common IT-related services that should be managed as corporate utility solutions

❏ Develop a clear and comprehensive eCommerce strategy

"To accomplish great things we must dream as well as act" - - Anatole France

The purpose of the **Treasury IT Strategic Plan** is to detail the Department's information technology (IT) agenda for the 2000-2003 time horizon. The plan outlines the Department's IT guiding principles, defines the goals aligned to business strategy, and presents high level strategies for implementation. Each of the strategic initiatives will have milestones and performance measures to gauge their success. The plan becomes the roadmap for the Department and the bureaus to align IT with their business strategies and investment decisions.

The figure below defines the steps for developing and implementing the IT Strategic Plan. This document represents the culmination of the first three steps: define IT guiding principles, identify strategic initiatives, and develop an IT strategic plan. The Department will now focus on implementing this plan by defining the detailed work breakdown structures, performance measures and milestones for each of the strategic initiatives. The bureaus and the CIO office will jointly develop the detailed implementation plan as a separate document.

Information Technology Strategic Planning Steps

Step 1	Step 1	Step 1	Step 1
Define IT Guiding Principles	**Identify Strategic Initiatives**	**Develop IT Strategic Plan**	**Implement IT Strategic Plan**

Define IT Guiding Principles
- Group and synthesize the IT guiding principles that were provided at the CIO Offsite meeting
- Develop a list of implications for each of the guiding principles

Identify Strategic Initiatives
- Determine strategic actions and tasks for the guiding principles
- Define the vision for IT within the Department
- Identify existing IT initiatives and innovative practices within the Department

Develop IT Strategic Plan
- Prepare the vision, IT guiding principles, strategic actions and tasks as part of an IT strategic plan

Implement IT Strategic Plan
- Define steps and priorities for strategic plan implementation
- Define work breakdown structures and time schedule for implementation of the strategic actions and tasks
- Identify advocates for the strategic initiatives
- Define goals, performance measures and milestones for the strategic initiatives

"You are today where your thoughts have brought you; you will be tomorrow where your thoughts take you"
- - - James Allen

Treasury is facing a challenging and exciting future. In an age of integrated and complex global economic conditions, the demands on the Department have increased substantially. Amidst this globalization, the dramatic growth of the Internet and electronic commerce has altered the nature of business transactions and created significant opportunities for the Department to improve service and reduce costs.

Treasury must be able to capitalize fully on the opportunities that technology presents. This plan provides the roadmap for the Department and the bureaus to align IT with their business strategies and investment decisions.

The Department has defined its IT vision as:

> **Enable and improve Treasury's business performance by effectively deploying and managing IT assets and creating a robust IT infrastructure.**

The Treasury CIO Council has established a set of guiding principles as the foundation of its new strategic direction. These ten IT guiding principles ensure that IT enables the business strategies of the Department and the bureaus. The specific purposes of these principles are:

■ The principles of Leadership and Customer Service define the overall strategic direction of IT within the Department.

- The principles of Strategic Planning, Operational Planning, Performance Measures, and Governance define the processes for effectively deploying and managing IT assets and investments.

- The principles of Architecture, Security, Skills and Capabilities and Shared Services lead to a robust IT infrastructure within the Department.

This plan presents a high level strategic approach for each of these ten principles.

The Role of the Department of the Treasury

The United States is enjoying the longest economic expansion in its history. This expansion includes 18 million new jobs since 1993, unemployment and inflation at their lowest levels in three decades, and the first balanced budget in a generation. At the core of this economic growth is a stable and secure banking system, a safe and prosperous society, and a fiscally-disciplined federal government. The Department of the Treasury (the Department) supports the foundations of this $7 trillion U.S. economy and the $1.7 trillion federal government that serves it.

The Department acts as the government's chief financial office, collecting $1.7 trillion in tax revenue, and disbursing more than $1 trillion in payments annually. It manages the federal government's accounts, cost effectively financing its operations and improving the efficiency of production operations. In the process, it has helped drive the government to a balanced budget.

The Department oversees the national banks to ensure a safe, sound and competitive national banking system. It manages our nation's borders at more than 300 ports of entry by enforcing import trade laws and regulations, and collecting over $20 billion annually from import duties, taxes, and fees.

The Department also plays a law enforcement role to ensure a secure economic environment. It combats financial crimes and money laundering, reduces the trafficking, smuggling, and use of illicit drugs and illegal firearms, and fights violent crime. In 1999, its efforts resulted in saving over $1 billion in crime-related costs and confiscating almost 1 million pounds of illegal narcotics.

Mission

As part of its overall strategic plan, the Department has three programmatic missions:

■ Promote prosperous and stable American and world economies

■ Manage the Government's finances

■ Protect our financial systems and our nation's leaders, and foster a safer and drug-free America

The Department's fourth mission is focused on improving its management processes:

■ Continue to build a strong institution

Key Department Operations

The Department manages its programmatic missions through a core set of operations.

Economic Mission

■ Advising on domestic and international financial, monetary, economic, trade and tax policy

Financial Mission

■ Managing federal finances

■ Collecting taxes, duties and fees paid to and due to the United States, and paying all bills of the United States to public and private sector recipients

■ Producing all currency and coinage and approximately half of all postage stamps

■ Managing Government accounts and the public debt

■ Supervising national banks and thrift institutions

Law Enforcement Mission

■ Enforcing federal financial and tax laws

- Investigating and prosecuting tax evaders, counterfeiters, forgers, smugglers, illicit spirits distillers, and gun law violators

- Providing law enforcement training to federal law enforcement officers

- Protecting the President, Vice President, their families, candidates for those offices, foreign missions resident in Washington D.C. and visiting foreign dignitaries

Organization

The Department is organized into two major components: the Departmental Offices and the operating bureaus. The Departmental Offices are primarily responsible for the formulation of policy and management of the Department as a whole, while the operating bureaus carry out the specific operations assigned to the Department. The following bureaus and offices make up Treasury:

- Departmental Offices

- Internal Revenue Service

- U.S. Customs Service

- Bureau of Alcohol, Tobacco, and Firearms

- U.S. Secret Service

- Federal Law Enforcement Training Center

- Financial Crimes Enforcement Network

- Office of the Comptroller of the Currency

- Office of Thrift Supervision

- U.S. Mint

- Bureau of Engraving and Printing

- Bureau of the Public Debt

- Financial Management Service

- Office of Inspector General

- Treasury Inspector General for Tax Administration

A Challenging Environment

In an increasingly complex and integrated global economy, the demands on the Department and the challenges it faces have proliferated. The growth of global trade has produced the consolidation and expansion of the international banking industry and the emergence of extensive multinational corporations. Amidst this globalization, the dramatic growth of the Internet and electronic commerce has altered the nature of many business transactions. Our IT strategies need to keep pace with this changing global environment.

Emerging information technologies and electronic commerce (eCommerce) also create significant opportunities for the Department to improve service and reduce costs. These opportunities become imperative in a world where the public is increasingly expecting high levels of service, similar to those delivered by the leading private sector corporations. New Internet and Web-based technologies provide new means to interact and transact with banks and taxpayers. New payment systems provide new means to settle accounts and disburse Federal funds. New interactive database capabilities provide opportunities to enforce trade laws and reduce criminal activities.

An IT-Enabled Department Strategy

The Department has established an ambitious strategy that leverages the full power and potential of the technologies that are revolutionizing our economy and our society. Information Technology (IT) has become a major, inextricable component of the Department's ability to achieve its mission.

IT will ensure decision-makers have accurate and timely data to assess policy to support the **economic mission** . The Department must ensure the integrity of the government's accounts to meets its **financial mission.** This requirement demands information systems to produce accurate and timely transactions and reports. World class security measures are needed to protect the systems. IT and emerging eCommerce and Web-based solutions will minimize the burden of compliance and maximize service delivery. This will dramatically improve the payment and revenue collection processes with businesses and taxpayers. Improved service delivery will increase customer satisfaction and reduce costs.

The Department's information systems will provide communication interoperability and data access to support the **law enforcement mission.** This will enable law enforcement agents suppress criminal activity. The Department will also provide world class training opportunities to improve IT capabilities and develop needed IT skills.

The Treasury Communications Enterprise (TCE) will provide a robust support infrastructure to empower workers and ensure connectivity and communications.

IT Challenges

Although information technology enables the Department to achieve its business priorities, IT also has the potential to heighten existing internal challenges and pose new issues for the Department to address:

- Security of information becomes more complex and difficult to control as access is broadened.

- New governance models and improved skills are needed as projects become increasingly complex.

- Compressed technology life cycles make critical infra-structure and IT solution decisions time sensitive.

- Interagency efforts such as the Federal CIO Council Strategies impact Treasury's IT directions.

- New IT capabilities need to be implemented while simultaneously ensuring that the current $2 billion per year IT operation continues to run and is Y2K compliant.

- Contingency plans and emergency response centers need to be ready to handle any IT problems that result from the century change.

- Finally, Treasury must meet the demands for improved services and better business value.

Legislation such as the Government Performance and Results Act, Clinger-Cohen Act, Government Paperwork Elimination Act, the Privacy Act and Electronic Freedom of Information Act have strong implications for IT strategic planning. Specifically, the Clinger-Cohen Act requires tight linkages between strategic planning, IT planning and the budget process as well as the establishment of an IT investment review process.

Overview

The Treasury CIO Council has developed an IT strategic vision:

Enable and improve Treasury's business performance by effectively deploying and managing IT assets and creating a robust IT infrastructure.

The CIO Council recognizes that Treasury must become a government leader in applying information technology to mission objectives. The demands and challenges faced by the Department require nothing less. The Council aspires to nothing less.

This Department-wide IT Strategic Plan provides the leadership and guidance to ensure that the Department's and bureaus' IT investments and assets are aligned with their business imperatives and are focused on delivering effective customer service.

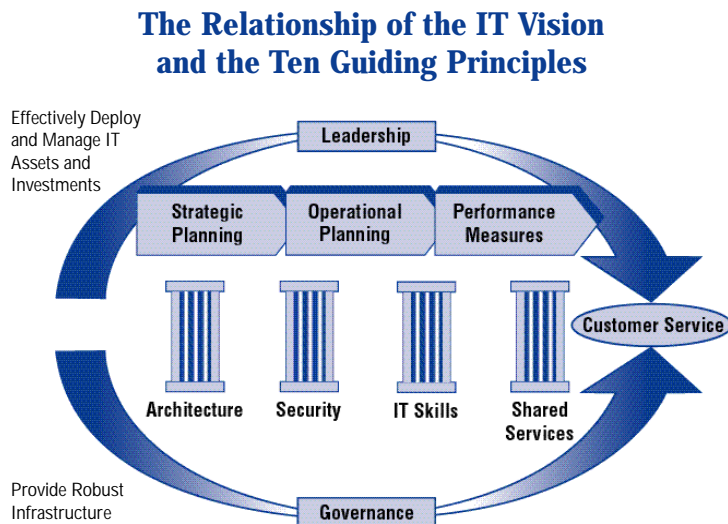## Guiding Principles

The CIO Council established a set of IT guiding principles. These principles provide the strategic direction of IT within the Department and ensure that IT enables the business strategies within the Department and the bureaus.

These ten guiding principles are:

- The principles of **Leadership** and **Customer Service** define the strategic direction of IT within the Department.

- The principles of **Strategic Planning, Operational Planning, Performance Measures, and Governance** define the processes for effectively deploying and managing IT assets and investments.

- The principles of **Architecture, Security, Skills and Capabilities, and Shared Services** lead to a robust IT infrastructure within the Department.

The figure below shows the relationship among these ten guiding principles.

The Relationship of the IT Vision and the Ten Guiding Principles

Effectively Deploy and Manage IT Assets and Investments

Leadership

Strategic Planning   Operational Planning   Performance Measures

Customer Service

Architecture   Security   IT Skills   Shared Services

Provide Robust Infrastructure

Governance

These ten guiding principles are the foundation of the Department's IT strategic direction. The next part of the plan outlines the high level actions and tasks needed to put these principles into practice.

The guiding principles provide the building blocks for the strategic actions and tasks. This section defines the strategic actions and tasks that need to be implemented in order to conform to the guiding principles.

Outline Leadership Processes to Meet Customer Needs

Develop leadership processes

❑ Set strategic direction for IT within the Department.

❑ Increase CIO offices' cross-understanding of business processes.

Develop a mechanism for incorporating customer needs

❑ Perform customer requirement analysis.

❑ Develop product and service improvements.

❑ Improve corporate utilities.

❑ Maintain continuous improvement.

Effectively Deploy and Manage IT Assets and Investments

Strategic Planning

gic planning processes

❑ Develop executive management planning process.

❑ Integrate planning processes.

❑ Develop communication programs for knowledge sharing.

Operational Planning

...nvestments within Treasury are focused on ...siness and operational processes

❑ Establish standard process analysis methodology.

❑ Identify IT-driven business process improvements.

❑ Require comprehensive business cases.

❑ Create business case development programs.

❑ Assess alignment of IT initiatives with business strategies.

Performance Measures

...aintain a performance measurement system

❑ Identify benchmarks.

❑ Establish measures for IT strategic initiatives.

❑ Establish measures and agreements for corporate utilities.

❑ Tie IT investments to outcomes measures within the Information Technology Investment Portfolio System (I-TIPS).

❑ Develop and execute performance reporting and management system.

Develop a clear governance structure for IT management

❑ Convene a working group to define further the governance roles and responsibilities for the CIO Council and CIO Board of Directors.

❑ Establish decision procedures for the CIO Board of Directors.

Develop Robust IT Infrastructure

Architecture

nt of interoperability needed to satisfy the , and then develop a Treasury-wide Architec- reasury Information System Architecture Framework (TISAF)

❑ Identify and develop a Treasury-wide enterprise information architecture.

❑ Evaluate and revise the TISAF to prescribe the Technical Reference Model (TRM) to ensure information technology interoperability.

❑ Assist the bureaus in their overall development of bureau-wide enterprise architectures consistent with the Treasury-wide architecture and TISAF.

❑ Launch bureau pilot leading to Treasury-wide interoperability and reusability.

Security

intain a secure IT environment

❑ Define the security architecture.

❑ Establish conventions for information sharing.

❑ Develop security guidelines and policies.

❑ Develop review and assistance program.

IT Skills

lls

❑ Set training budget policies.

❑ Develop and execute training programs.

❑ Enhance recruiting and retention programs.

❑ Create IT skills plans and assessment system.

**Shared
Services**

**...termine common IT-related services that
...ged as corporate utility solutions**

❑ Identify candidates for corporate utilities.

❑ Develop evaluation strategy.

❑ Implement viable corporate utilities.

❑ Identify leasing opportunities.

Develop a clear and comprehensive eCommerce strategy

❑ Research best practices.

❑ Develop eCommerce vision, policies, and guidelines.

❑ Identify eCommerce opportunities.

❑ Provide technical assistance to bureaus.

❑ Launch bureau pilots.

This section provides details on implementation strategies.

Develop leadership processes

Leadership is required to drive the culture and organization change to implement this plan.

- ***Set the strategic direction for IT within the Department.***

  The leadership for IT management will come from the CIO Council which will maintain the IT strategic plan for Treasury. The CIO Council will identify emerging technologies and required IT capabilities as well as coordinate policy and management issues related to information resources and telecommunications management.

- ***Increase CIO offices cross-understanding of business processes.***

  Cross-training will identify opportunities for organization synergies with business and IT strategies Training programs and/or a series of quick overview sessions will be established for bureau CIOs and their staff to help understand what other bureaus do.

Develop a mechanism for incorporating customer needs

Customers of IT need to be assured that cost savings and other benefits can be achieved by partnering with the information management community. It is imperative that the information management community work with its customers to incorporate customer needs and develop solutions to ensure that IT is aligned with the business strategies within the Department and bureaus.

■ **Perform customer requirements analysis.**

The Department and the bureaus will perform customer requirements analysis to identify customer needs and customer segmentation. In addition, the Department and the bureaus will partner with customer groups to analyze, evaluate and recommend solutions to satisfy customer requirements.

■ **Develop product and service improvements.**

The Department and the bureaus will develop and maintain a focus on delivering customer service. The information management community will work with the customers to identify improvement opportunities through working groups and customer surveys.

■ **Improve corporate utilities.**

The Department will develop programs for improving its service management and service delivery for the existing corporate utility solutions. It will work with the bureaus to identify improvement opportunities within the corporate utilities and take action in implementing the improvements.

■ **Maintain continuous improvement.**

The Department and the bureaus will develop ongoing tracking and refinement measures. These measures will assist the CIO offices to monitor performance.

Enhance Strategic Planning processes

Understanding the Department's and bureaus' missions, goals, objectives and processes is fundamental to providing effective information management support. The information management community needs to be cognizant of these missions in order to improve interoperability, coordination and communication. The enhanced planning process facilitates this understanding.

■ *Develop executive management planning process.*

The information management community will work closely with the bureau heads and Chief Financial Officers (CFOs) in all aspects of IT planning. The Department will work with the bureaus to outline a collaborative planning process between the bureau heads, CFOs and the CIOs for IT-related investments, including guidelines and mechanisms on how bureau CIOs can engage the bureau heads and CFOs in effective IT planning.

■ *Integrate planning processes.*

The Treasury Office of the CIO will work with the CFO to establish guidelines for further integrating IT with other planning processes for the bureaus. This will ensure that IT strategic planning and IT investments are integrated into the budget process.

■ *Develop communication programs for knowledge sharing.*

The Department will work with the bureaus to develop a communication program and knowledge sharing mechanism to disseminate information pertaining to IT strategic planning among the bureaus. The Department will develop a "Knowledge Management" system to capture, retain and disseminate this kind of information.

Ensure that IT investments within Treasury are focused on improving the business and operational processes

The business processes within Treasury and the bureaus will be well defined and documented to identify areas of improvement.

■ *Establish standard process analysis methodology.*

A standard process analysis methodology will be established to ensure that the Department and bureaus are fully cognizant of the underlying business processes within their respective organizations. Working groups will be formed to identify, analyze and evaluate methodologies for conducting business process analysis. The Department will work with the bureaus to develop a process analysis guide incorporating the selected methodology. The Department will also establish and maintain a common repository for the business processes and requirements.

- ***Identify IT-driven business process improvements.***

    The Department will work with the bureaus to facilitate the use of the standard process analysis methodology to identify the "as-is" processes that can be improved.

    - ☞ **Require comprehensive business cases.**

    The Department will develop guidelines for the bureaus to perform business case analysis for IT-related investments, and provide the bureaus with best practice examples of business case development from the government and private sector.

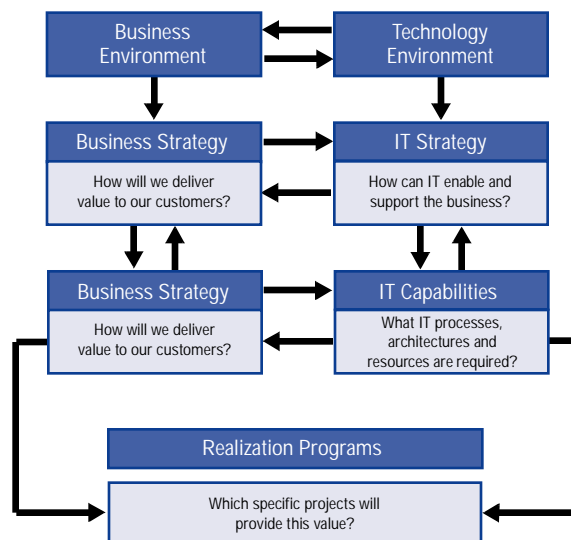- **Create business case development programs.**

    The Department will establish programs to assist bureaus in developing their business-case analysis for IT-related investments to be used in bureau-level IT Investment Review Boards.

- **Assess alignment of IT initiatives with business strategies.**

    The Department will develop templates that allow the bureaus to assess how well their IT initiatives are aligned with the bureaus' business strategies.

While conducting strategic and operational planning, the Department and the bureaus will ensure that they are able to link the business environment with the IT environment by asking the key questions, as outlined below:

IT Alignment

```
┌──────────────────┐        ┌──────────────────┐
│     Business     │ ◄────► │    Technology    │
│   Environment    │        │   Environment    │
└──────────────────┘        └──────────────────┘
        │                            │
        ▼                            ▼
┌──────────────────┐        ┌──────────────────┐
│ Business Strategy│ ────►  │   IT Strategy    │
├──────────────────┤  ◄──── ├──────────────────┤
│  How will we     │        │ How can IT enable│
│  deliver value   │        │ and support the  │
│  to our customers?│       │   business?      │
└──────────────────┘        └──────────────────┘
        │   ▲                        │   ▲
        ▼                            ▼
┌──────────────────┐        ┌──────────────────┐
│ Business Strategy│ ────►  │  IT Capabilities │
├──────────────────┤  ◄──── ├──────────────────┤
│  How will we     │        │ What IT processes,│
│  deliver value   │        │ architectures and │
│  to our customers?│       │ resources are     │
│                  │        │ required?        │
└──────────────────┘        └──────────────────┘
     │                            │
     │    ┌────────────────────────────┐     │
     │    │   Realization Programs     │     │
     │    ├────────────────────────────┤     │
     └──► │  Which specific projects   │ ◄───┘
          │    will provide this value?│
          └────────────────────────────┘
```

Establish and maintain a performance measurement system

Legislative requirements such as GPRA and Clinger-Cohen focus on goals, objectives and measures. By establishing and maintaining performance measurement systems, the Department and the bureaus will be able to tie their IT strategic initiatives to explicit performance measures and evaluate service delivery to customers.

■ **Identify benchmarks.**

The Department will work with the bureaus to develop a list of benchmarks used in the private sector and government. These will be used by the Department to compare the performance of its corporate utility solutions.

■ **Establish measures for IT strategic initiatives.**

The Department will work with the bureaus to outline the guidelines for their own internal performance measures.

- **Establish measures and agreements for corporate utilities.**

  The Department corporate utilities will be governed by explicit performance criteria aligned with key business measures. In addition, the Department will work with the bureaus to establish service level agreements for its corporate utility solutions.

- **Tie IT investments to outcomes within the Information Technology Investment Portfolio System (I-TIPS).**

Define a clear governance structure for IT management

A clear governance structure will assist in effectively deploying and managing the IT assets and investments within the Department and the bureaus. This governance structure will help identify the relationships between the entities at the Department and bureau levels (see chart below of the "Preliminary Treasury IT Governance Structure").

- **Convene a working group to define further the governance roles, responsibilities and processes.**

  A working group of key stakeholders will define the governance roles, responsibilities and processes for the Treasury Office of the CIO, bureau CIOs, the CIO Council and the CIO Board of Directors. The working group will ensure that relationships are clearly established between relevant Department and bureau entities to facilitate the effective deployment and management of IT investments. The stakeholders will analyze and evaluate alternative governance structures within the private sector and the government. The working group will recommend the best option to the CIO Council for approval.

■ **Establish decision procedures for the
CIO Board of Directors.**

The existing CIO Board of Directors oversees
the Treasury Communications Enterprise (TCE).
As additional corporate utilities are developed
and implemented within the Department, the
CIO Board of Directors will have oversight
responsibility for all these utilities. Decision
procedures will be defined for the CIO Board
of Directors for all corporate IT utilities, with
clear roles and responsibilities.

The Department is in the process of defining the
governance structure for IT management. A
preliminary version of this structure is shown
below:
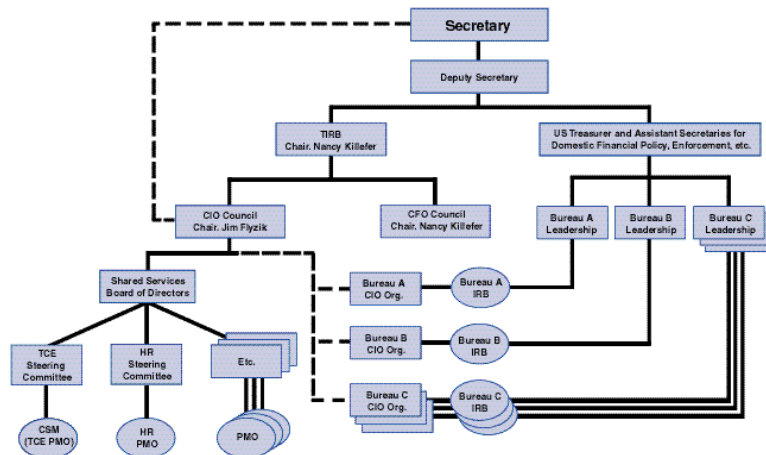
Define the extent of interoperability needed to satisfy the business needs, and then develop a Treasury-wide Architecture using the Treasury Information System Architecture Framework (TISAF).

It is imperative that the Department develop an IT architecture that is driven by the Department's business strategies and focused on ensuring appropriate interoperability and reusability. The Department must strive for consistency while allowing some flexibility, recognizing the autonomy and differences of the bureaus. In addition, the Department will assist the bureaus in their architecture development activities.

■ *Identify & develop a Treasury-wide enterprise information architecture.*

The Department will work with the bureaus to determine at what level an IT architecture is needed to ensure interoperability and reusability within Treasury.

The Department will conduct facilitated working sessions with the bureaus to collectively define and agree on a "consistent" architecture. The Department will establish a working group to define interoperability and reusability standards. The working group will coordinate its efforts with the Treasury Architecture Working Group (TAWG).

■ *Evaluate and revise the TISAF to prescribe the Technical Reference Model (TRM) to ensure information technology interoperability.*

The Department will work with the bureaus to prescribe a TRM within the Treasury Information System Architecture Framework (TISAF) to provide guidance to the bureaus for the development of their enterprise information architecture.

■ Assist the bureaus in their overall development of bureau-wide enterprise architectures consistent with the Treasury-wide architecture and TISAF.

The Department will establish mechanisms to support the bureaus in developing their information system architecture. It will work to increase awareness of TISAF and other implementation guidelines.

☞ **Launch a bureau pilot leading to Treasury-wide interoperability and reusability.**

The Department will assist a selected pilot bureau in using the TISAF concepts for the development of the bureau information technology architecture.

Develop and maintain a secure IT environment

Developing a secure IT environment will help Treasury protect its information resources and infrastructure. It will allow the Department to conduct its transactions with other agencies and external customers in a secure manner. The Department will continue to support the Presidential Decision Directive (PDD) 63, Protecting America's Critical Infrastructures. The Department will define strategies to implement its Critical Infrastructure Protection Plan (CIPP) which was submitted to the National Security Council's Critical Infrastructure Coordination Group (CICG).

■ *Define the security architecture.*

The Department will conduct workshops with the bureaus to define a security architecture and develop a protection strategy for its information systems. This security architecture will be an element of the overall Department architecture.

☛ **Establish conventions for information sharing.**

The Department will work collectively with the bureaus to establish conventions for sharing sensitive information within applicable laws and regulations.

■ **Develop security guidelines, policies and standards.**

The Department will determine IT security policies, standards and guidelines.

- Develop security review and assistance program.

   The Department will create a comprehensive security review program to ensure an adequate level of performance, and an assistance program that includes facilitating best practice discussions, toolbox, awareness notifications, and training sessions.

Improve IT skills

The Department has spent the last year assessing and developing recommendations for improving the IT skills within the Department. The focus will now be on a comprehensive approach to develop a high performing workforce. This approach will take into account recruiting, skill development, promotion, retention and employee satisfaction.

- *Set training budget policies.*

   The Department will provide guidelines on training budgets as a percentage of the IT payroll.

- *Develop and execute training programs.*

   The Department will provide a mechanism for the bureaus to interact with each other and learn about specific training programs being implemented at the bureau level.

■ *Enhance recruiting and retention programs.*

The Department will work with the bureaus
to improve the recruiting process to attract
the best people with the right skill set.
This involves examining the existing IT
skills needs among the bureaus and identifying
the best opportunities for fulfilling these needs.
In addition, the Department will work with the
bureaus to explore strategies for retaining IT
staff.

■ *Create IT skills plans and assessment
system.*

The Department will work with the bureaus to
establish an assessment system for tracking
progress in IT skills improvements.

Examine and determine common IT-related services that should be managed as corporate utility solutions

Currently, the Department operates one corporate
utility: Treasury Communications Enterprise.
Several large, private sector organizations operate
corporate utilities that span multiple business units.
These private sector corporate utilities take advantage of
synergies and economies of scale across the business units,
reducing the cost of service delivery.

■ *Identify candidates for corporate utilities.*

The Department will work with the bureaus to:

- identify the types of services that can
  be shared across multiple bureaus;

- perform cost-benefit analyses,
  assessing the feasibility of corporate
  utility solutions for some IT-related
  services;

✒ establish an information sharing mechanism to identify potential initiatives for corporate utility solutions.

■ *Develop evaluation strategy.*

The Department and the bureaus will establish a working group to develop a strategy for evaluating and instituting effective corporate utility solutions.

■ *Implement viable corporate utilities.*

The Department will work to create an awareness of the corporate utility and assist the interested bureaus in implementing solutions.

■ *Identify leasing opportunities.*

The Department will establish guidelines for the bureaus to identify solutions that should be leased rather than purchased within the bureaus' CIO organizations.

Develop a clear and comprehensive eCommerce strategy

Businesses across the world have been able to take advantage of internet technology to create awareness of their products and services, increase revenues, lower costs, and reduce time to market. The Department will focus on identifying the business processes that can benefit from the internet and implement eCommerce solutions in conjunction with the bureaus.

- ***Research best practices.***

  The Department will research solutions (e.g., eProcurement, eCRM - Customer Relationship Management), identify the best practice cases and disseminate these to the bureaus.

- ***Develop eCommerce vision, policies, and guidelines.***

  The Department will work with the bureaus to define an eCommerce vision and objectives that integrate business needs with IT. These objectives will incorporate the roles and responsibilities for developing eCommerce solutions within the Department. In addition, the Department will develop policies and guidelines that will be applicable for the development of eCommerce solutions across the bureaus.

- ***Identify eCommerce opportunities.***

  The Department will identify objectives and processes at the Departmental level that can benefit from eCommerce solutions and develop business cases to support these solutions. In addition, it will provide support to the bureaus by providing a business approach for identifying eCommerce opportunities.

- ***Provide technical assistance to bureaus.***

  The Department will develop the skills and capabilities to assist the bureaus in developing eCommerce solutions.

- ***Launch bureau pilots.***

  The Department will work with selected bureaus to identify the eCommerce opportunities within the bureaus and implement appropriate eCommerce solutions.

The Department and its bureaus have instituted a variety of innovative practices and strategic IT initiatives to provide world-class customer service and enable business strategies. These ongoing efforts illustrate the guiding principles outlined in this document.

Innovative Practices

- **Seat management at ATF**

ATF's use of seat management is considered one of the best ways of maintaining an up-to-date IT infrastructure at a low cost. This is part of ATF's Enterprise Systems Architecture. Seat management includes the acquisition and deployment of personal computers, standardized operating software, and peripherals such as LAN printers, and Help Desk support services to approximately 4,100 employees in 223 ATF posts of duty.

ATF has become a leader among Federal agencies in contracting for seat management services. It will continue to use alternative private sector and other governmental sources; e.g., GSA schedules, Treasury executive agent programs, to provide IT support services efficiently and at the lowest cost based upon competition among vendors and year-to-year performance.

ATF's seat management contract is based on a 36-month lease. The alternative to this option would be to continue to purchase infrastructure components. The drawback to this alternative is that information technologies have a life cycle of 20 months. Seat management provides ATF with a readily available option to upgrade or replace any IT equipment or software while keeping infrastructure inventory and related maintenance costs at a minimal level.

■ **IT management processes at Customs**

The IT planning effort at Customs is believed to be one of the best withing the Department. Currently within its second iteration, Customs' IT planning effort is moving away from solely focusing on performance measures and scoring. Instead, Customs is moving increasing towards developing business cases, cost estimates and an evaluation of what IT actually does for the bureau's missions and objectives.

Customs has established an Information Technology Council (ITC) which is chaired by the CIO and includes managers from the business side. The ITC creates the business cases for IT projects and investments. The CIO can approve investments of less than $1 million.

Customs also has an Investment Review Board (IRB) which reviews investments over $1 million. The membership within the IRB includes various managers from the business and IT side in order to provide a comprehensive perspective.

■ **Program and contract restructuring at Corporate Systems Management (CSM)**

CSM has begun a program and contract restructuring effort to bring performance-based contracting (PBC) to the Treasury Communications Environment (TCE). PBC will introduce financial risks and rewards for the prime contractor, based on agreed program metrics. This initiative is expected to deliver promised customer services and reduce unit costs. Implementation is scheduled for fiscal year 2000.

Other features of the restructuring effort include the integration of a variety of IT services onto a common network, with a single services integration contractor as the focal point for customers.

IT Initiatives

■ **Linking Organization and Systems Redesign: IRS Modernization**

In order to upgrade the level of service and to improve customer focus, the IRS has been pursuing an integrated organizational and systems modernization. The modernizataion aims to provide service to each taxpayer, and all taxpayers, while improving productivity through a quality work environment.

The immediate benefits of modernization will be intelligent call routing and better taxpayer access to IRS customer service representatives, improved self-service applications, and initial direct electronic communication with taxpayers. Mid-term to long term benefits will include expanded electronic filing and payment options, faster refund processing, and modernized tax processing and improved account handling.

Organizationally, in accordance with GAO recommendations and the IRS Restructuring and Reform Act of 1998, IRS has begun to redesign the organization and business practices around four principal operating divisions aligned with taxpayer market segments. Technologically, IRS will replace aging systems and deploy new technologies to support the new business practices.

- **Using IT Architecture Frameworks: Automated Commercial Environment (ACE) at Customs**

As a first attempt at automating Customs' processes, the U.S. Customs Service implemented the Automated Commercial System (ACS) in 1984. This system made major advances toward reducing paperwork requirements for both Customs and the importing community and supported the Trade Compliance process by tracking, controlling, and processing all commercial goods imported into the US.

To respond to the evolving needs of Customs commercial processing, and deter the cost of ongoing system enhancements, Customs has created a strategy for the development and deployment of the Automated Commercial Environment (ACE) using an architecture framework. In May 1998, the first release of ACE occurred in the ports of Laredo, Detroit, and Port Huron. Known as the National Customs Automation Prototype (NCAP), this release successfully demonstrated an ACE-supported, redesigned trade compliance business process.

While developing ACE, Customs identified the target Business architecture and proposed a technical architecture to support it. This business and technical architecture were determined based on the TISAF.

Following the initial release of NCAP, a second release, encompassing cargo release plus a fully electronic examination process, was implemented in the three original prototype ports in October 1998. Additional releases are scheduled for implementation in 1999.

- **Automating Accounting and Reporting: Government On-line Accounting Link System (GOALS) at FMS**

GOALS I is a commercial timesharing service through which the Federal Government transmits and receives accounting and financial data between FMS and more than 750 Federal Agency Location Codes each month. Currently, there are over 2,500 users of GOALS worldwide. Since 1984, 18 applications have been installed covering virtually all financial reporting between Treasury and the federal agencies. This also includes all interagency payment and collection transactions, and the submission of budget execution reports to the Office of Management and Budget (OMB).

GOALS II will replace GOALS I and provide equivalent or enhanced functionality in accordance with the Clinger-Cohen Act. FMS desires to break the existing system's functionality into separate modules to lessen dependence on one system developer/provider and to minimize risks in accordance with the Clinger-Cohen Act and the "Raines Rules."

The GOALS II project management structure is made up of co-managers from the program area and the systems development area. Separate project teams have been established to facilitate concurrent development of all modules. By segregating the efforts, FMS will ensure greater success in meeting the objectives of GOALS I in phases, and this phased implementation will continue till 2001.

■ **Developing an Enterprise Information System:**
Consolidated Information System (COINS) at Mint

The Consolidated Information System (COINS) has been developed as an enterprise-wide information system. This system will directly fulfill the Mint's strategic objective to acquire an integrated business system to provide the accurate, meaningful, and timely information required by Mint management. The overall objective is the one-time capture of information at its source. COINS will replace various legacy systems within Mint which encompass finance, accounting, order processing and bullion.

The COINS effort has given the Mint an opportunity to adopt architectural assessment criteria. The Mint has embarked on developing an Enterprise Resource Optimization suite of integrated applications. The initial effort includes implementation of the COINS Financial and Manufacturing applications.

The full implementation of COINS will give the Mint the necessary tools to measure performance in ways that it has never been able to do up to now. The applications withing COINS have the capacity to capture and report performance measures in a variety of ways according to the needs of the business units within Mint, thereby complying with the requirements of the Government Performance and Review Act.

■ **Providing Shared Services: Treasury Communications Enterprise (TCE)**

The Treasury Communications Enterprise (TCE) incorporates many telecommunication services to include voice, data, video and Internet access, and provides these services to the Department and the bureaus. Corporate Systems Management (CSM) within the Treasury Office of the CIO is responsible for the overall management, administration, and fiscal functions of the TCE, including tactical and strategic planning, service catalog development and customer service. The shared infrastructure makes it possible to command value discounts that accrue to all customers and the enterprise. And the infrastructure standardization reduces inefficiencies, customer costs, operational costs and security interfaces, and common security measures.

CSM has a vision of partnering with the bureaus and other agencies to provide world-class, customer-focused, service integrated and cost-effective telecommunications and information services. It is anticipated that this enterprise solution will be achieved through the use of commercially provisioned services that will replace the current point-to-point network.

■ **Implementing Effective Security Programs:**
   IRS' Office of Systems Standards and Evaluation

IRS established the Office of Systems Standards and Evaluation (SSE) in 1997 to handle the critical security and privacy issues raised by IRS itself, the General Accounting Office (GAO), and Congress. Augmenting the resources of SSE, IRS worked with other agencies and contractors to carry out penetration testing, evaluate detection and reaction capabilities, and perform specialized hardware and software testing. As a result of these efforts, IRS has mitigated 88% of the weaknesses identified by GAO. Another major accomplishment of IRS is the development of the Program to Stop Unauthorized Access. This program contributed to removing 100% of the persons who were violating the unauthorized data access statute.

IRS' approach emphasizes not only finding security weaknesses but also identifying the solutions. A major goal for IRS is to build adequate security into all new systems to avoid the expense of retrofitting security solutions at a later time. Although new weaknesses continue to be identified, IRS is concentrating on eight security areas: physical security, logical security, data communications security, systems life cycle, computer operations, configuration management, contingency planning, and personnel security.

NEXT STEPS

This Treasury IT Strategic Plan provides the Department with leadership and guidance for deploying and managing its IT resources.

The Department has already made progress in achieving some of these goals; some important examples of forward steps are:

- **IT Skills** - The Department has spent the last year assessing and developing recommendations for improving the IT skills within the Department.

- **Architecture** - The Treasury Information System Architecture Framework (TISAF) has been developed to assist in defining IT architectures. The Department is in the process of using the TISAF to define a Treasury-wide IT architecture.

- **Security** - The Department is in the process of developing Public Key Infrastructure (PKI) standards for a secure IT environment.

In other areas, the Department is approaching critical decisions about next steps. Examples of these critical areas are:

- **Governance** - The Department will develop strategic initiatives to refine and strengthen a governance structure.

- **Shared Services** - The Department will examine common IT-related services that could be managed as corporate utility solutions.

- **eCommerce** - The Department is focused on defining a clear and comprehensive eCommerce strategy.

The Department will continue to work with the bureaus to implement this IT Strategic Plan. Collaboration and co-operative support are vital to achieving the Department's IT strategic vision. In realizing its vision, Treasury will maintain and further its leadership role in the Federal government.

GLOSSARY

ACE - The Automated Commercial Environment is the US Customs' system designed to reduce paperwork requirements for the agency and the importing community.

CIO Board of Directors - This entity is comprised of bureau CIOs and deputy CIOs and is responsible for overseeing shared services and programs. Currently, this oversight function is solely focused on TCE.

CIO Council - This entity is responsible for developing and maintaining IT strategic plans for Treasury. It identifies emerging technologies and IT capabilities. It coordinates policy and management issues related to information resources and telecommunications management.

Clinger-Cohen Act - This legislation is also referred to as the Information Technology Management Reform Act of 1996. It requires the tight linkages between strategic planning, IT planning and the budget process as well as the establishment of an IT investment management process.

COINS - The Consolidated Information System is the US Mint's system which is used for providing accurate, timely and meaningful information to Mint management. It replaces various legacy systems within the Mint which encompass finance, accounting, order processing and bullion.

EFOIA - The Electronic Freedom of Information Act was signed into law in 1996. It enables electronic access to federal agency records without a formal FOIA request - unless the records (or part of the records) are protected from disclosure by any of the nine exemptions contained in the law.

GPEA - The Government Paper Elimination Act intends to increase the ability of citizens to interact with the federal government electronically. GPEA provides for federal agencies to implement electronic filing systems, to eliminate wherever practical the need to retain paper records, and to use electronic authentication methods to verify the identity of the sender and the integrity of electronic content.

GPRA - The Government Performance and Results Act was signed into law in 1994. It requires federal agencies to define their general goals and objectives, including outcomes for their functions and operations. It also focuses on providing descriptions for how the goals are to be achieved.

Information - This refers to any statement or estimate of fact or opinion, regardless of form or format, whether in numerical, graphic or narrative form, and whether oral or maintained on paper, electronic or other media.

Information system - This is any combination of IT and related resources that function together to produce the capabilities required to fulfill a mission need, including hardware, ancillary equipment, software, but excluding construction or other improvement to real property.

Information technology - This refers to any equipment or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information.

I-TIPS - The Information Technology Investment Portfolio System is an investment management tool used for making investment decisions and tracking the performance of these investments.

PKI - Public Key Infrastructure identifies the standards for encrypting and decrypting information.

Seat Management - This is a way of acquiring and deploying IT hardware and software on a lease basis.

TCE - The Treasury Communications Enterprise manages and operates the Treasury's data networking service technology infrastructure as a corporate utility.

TISAF - The Treasury Information System Architecture Framework provides guidance to the Treasury bureaus concerning the development and evolution of information systems architecture.

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